

BOROUGH OF LOUGHBOROUGH.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH  
FOR YEAR ENDING 31ST DECEMBER, 1898.

TO THE TOWN COUNCIL OF THE BOROUGH OF LOUGHBOROUGH, ACTING AS THE  
URBAN DISTRICT COUNCIL.

Gentlemen,

I have the honour of submitting to you my Annual Report on the health of the Borough during the year 1898.

M O R T A L I T Y.

The total number of deaths registered during the year was 354, but as 18 of these were of persons not belonging to the Borough, who died at the Workhouse or Hospital, the corrected number of deaths is 336, which is equal to an annual death-rate of 16.3 per thousand of the estimated population, being .8 above the death-rate of 1897 (which was exceptionally low), but 1.6 below the average death-rate of the last ten years.

Z Y M O T I C M O R T A L I T Y.

The total number of deaths from zymotic diseases was 68, being a zymotic death rate of 3.3 per thousand, which is .7 more than 1897 and .7 above the average of the zymotic death rates of the last ten years. This increase of zymotic mortality was mainly due to diarrhoea, but has been further swelled by six deaths from typhoid fever and 13 from measles. Each of these diseases will, further on, be separately dealt with.

I N F A N T M O R T A L I T Y.

The infant mortality, which is usually high, is exceptionally so this year, no fewer than 116 deaths of children under one year having occurred, which is equal to 194 per thousand of the births registered. This exceptional infant mortality is chiefly due to an epidemic of measles in the early part of the year and an exceptional prevalence of diarrhoea in the summer and autumn, due to the very hot weather which then prevailed. Even when due allowance is made for these two exceptional causes, the infant death rate still remains too high to be anything like satisfactory. There are many causes operating in the production of this high mortality. In a manufacturing town, such as Loughborough, where married women are largely employed in factories and elsewhere the offspring of these women do not receive that tender care and nursing which are so essential in the first months of life. In the majority of instances artificial feeding becomes necessary by reason of the length of time during which the mother is, each day, separated from the child. Then the artificial food administered by those in whose care the infants are left is often of the most unsuitable character, generally milk turning sour, not sufficiently diluted and rarely



boiled. This gives rise to inflammation of the lining of the stomach and intestines, which constitutes the commencement of diarrhoea and other wasting diseases, tuberculosis among the number, the germs of which are frequently ingested with improperly prepared food. Keeping infants in badly ventilated rooms is another factor, as also is too much clothing in summer time and too little in winter, and lastly want of cleanliness of the infants skin, of the clothing and bed clothing with which they are enveloped and of the bottles and other utensils used in the preparation and administration of their food. It must not however be inferred that neglect is the only factor at work in the production of a high infant mortality. Were that so the mortality would be the same or nearly so all the year round. The influence of climatic conditions has to be taken into consideration and, how great this influence is, the following figures will show:-

No. of Deaths of Children under one year in each of the months of the year:

MONTH	NO. OF DEATHS	WEATHER GENERALLY
January	10	Severe
February	7	Mild
March	14	Cold Winds
April	6	Mild
May	7	Cool & Changeable
June	4	Warm
July	4	Warm
August	28	Very hot
September	18	Very hot
October	6	Dull & Cool
November	3	Clear & Cool
December	9	Dull & Changeable

The influence of insanitary surroundings, ground air, sub-soil water, &c in the production of infantile mortality will be dealt with under the headings of Diarrhoea, Typhoid, &c.

#### B I R T H S.

The total number of births registered was 597- 311 males, 286 females. This is an annual birth rate of 29 per thousand of the estimated population, being the same as last year and 2 per thousand below the average birth rate of the last seven years.

#### I N F E C T I O U S D I S E A S E S.

The total number of cases of infectious diseases notified under the Act was 117, being four less than last year, and 99 less than the average of the last seven years. There were 159 certificates received from Medical Practitioners, but 42 of these had reference to cases already notified. The number of cases of the several diseases were as follows:-

Scarlet fever	56
Typhoid fever	36
Erysipelas	16
Puerperal fever	53
Membranous Croup	6

There were no cases of Diphtheria or Smallpox.





## S C A R L E T F E V E R.

The number of cases of this disease which occurred during the year is 11 more than last year, but is considerably below the average. The cases were mostly isolated ones, there being nothing in the nature of an epidemic. The greatest care has been exercised to prevent the infection of this disease gaining access to our Schools. The patients are at once isolated as much as possible in their homes and the other children of school age are excluded from school until all danger of infection has passed and until the house and clothing have been disinfected, under the superintendence of the Sanitary Inspector. Three of the cases terminated fatally.

## M E M B R A N O U S C R O U P

Six cases of this disease were notified, five of which terminated in death. No connection could be traced between the cases, nor could definite insanitary conditions be discovered to account for either of them.

## T Y P H O I D F E V E R.

Thirty-six cases of this disease have been reported notified and seven deaths have been registered as due to this cause. The number of cases notified is 19 more than last year and 18 more than the average of the last seven years. There was nothing of the character of an epidemic in the manner in which the cases arose, each seeming to arise independently of those which had occurred before. Every case was investigated immediately it came under the notice of your Officers, the water supply was ascertained, the places whence the milk for the family was obtained were visited and the sources of food supply were inquired into, with a view of discovering a common cause of origin, but no such common cause could be discovered. The first case occurred in August in a cottage in Southfield Road, where typhoid fever had occurred twice in the last five years and where bad sanitary conditions existed. The next occurred in Cobden street, where typhoid has cropped up almost every Autumn. Then followed several isolated cases in the neighbourhood of Moor Lane. In almost every instance badly paved yards, filth saturated gardens or insanitary middens were found to exist. In my opinion the increased prevalence of this disease during this Autumn is attributable to climatic conditions operating on a filth saturated soil. The climatic conditions were warm weather during the end of June and first three weeks of July, then rain and humid weather for about a week, followed by a period of heat and drought, which continued to the middle of October. A filth saturated soil we unfortunately have in some of the older parts of the town. The causes which give rise to this continuous soil pollution I will mention later on. It has of late been abundantly demonstrated that the bacillus of typhoid fever will increase rapidly in a soil contaminated with organic filth, provided such soil be moist and moderately warm, and, it has also been shown, that it may preserve its vitality even when this soil is so dry as to be capable of being blown about as dust by the wind. It has, on the contrary, been proved by experiment that typhoid bacilli soon lose their vitality when deposited in earth which is devoid of decaying organic matter, even though the conditions of heat and moisture may be present. Typhoid fever is a disease of slow development. A week or more occasionally elapses before patients develop symptoms of such gravity as to cause them to seek medical relief. During this period no care





is taken as to the disposal of the dejecta of such patients, which is deposited, probably, in a common midden, where the germs with which they are loaded rapidly multiply. When such a midden is emptied, portions of the contents are invariably slopped over on to the surface of the adjoining ground, and, becoming dried, may be blown by the wind and deposited on some article of food such as milk, cheese, fruit or other substance usually eaten uncooked, which may give rise to typhoid fever in susceptible persons consuming such food. Although the various and extensive sanitary improvements carried out in Loughborough during recent years have done much to diminish the amount of this disease in our midst, (our excellent water supply is in itself a most potent safeguard), still, from what I have written above it will be seen that in order to completely eradicate typhoid from the Borough we must aim at preventing the continuous contamination of the soil by accumulations of filth, middens, badly constructed drains, badly paved yards, open and wet ashpits, &c. There are small gardens attached to many of the cottages in this town which, if cultivated, would be a source of health and pleasure, but, frequently, instead of being cultivated they are made the receptacles of all sorts of filth or are used for keeping fowls, rabbits or pigeons upon them. Such conditions it will be the duty of your Officers in future to condemn as nuisances and take such steps as will cause them either to be cultivated or else paved.

#### FEVER ISOLATION HOSPITAL.

This matter has, of late, been receiving most earnest consideration by the Corporation of Loughborough and a Joint Committee, consisting of representatives from the Borough and also from Leake and Loughborough Rural District Councils, held several meetings with a view of erecting a Hospital of twenty or thirty beds for the Joint District. The Town Clerk (Mr Jarratt) made extensive inquiries from towns all over the country, which possessed such Hospitals, as to the working of them and the expense of construction and management. The very able and elaborate report which he placed before the Committee showed them that the erection and maintenance of such a Hospital as would receive the sanctions of the County Councils and the Local Government Board would cost such an amount as would be equal to a rate of 3d in the £ of the rateable value of the District. This formidable expenditure the Committee do not at present deem advisable. The Smallpox Isolation Hospital which the Borough possesses is capable of accommodating twelve patients, but this ought not to be used for any other disease as in an unvaccinated community, such as ours, it is necessary to have accommodation for smallpox patients always in readiness. Under present conditions, when a case of typhoid or scarlet fever arises in an ordinary working man's cottage, the disease frequently spreads to other members of the family by direct infection. Were there a Fever Hospital available, such spread by direct infection would not take place, because the first case could at once be removed. Under ordinary circumstances, three or four cottages used as a temporary Isolation Hospital would do most useful service in preventing this spread of fever in families and I recommend that the Sanitary Committee acquire such, in as suitable a position as possible, and furnish them fit for the comfortable reception and treatment of fever patients

#### P U E R P E R A L F E V E R.

Three cases of this disease were notified, all of





which terminated fatally. Each case arose independently and there was no spread from either.

#### E R Y S I P E L A S.

Sixteen cases of this disease were notified, against 38 last year. They were mostly mild cases and of no importance from a sanitary point of view.

#### M E A S L E S.

A rather severe epidemic of this disease occurred, commencing on January 28th with a boy, a boarder at the Grammar School, and, almost simultaneously, with a girl residing in Church Gate, who was a pupil at the Church Gate Infant School. These two cases were isolated as soon as the ~~inf-ectious~~ infectious nature of the disorder was discovered, but the infection had already spread in each case to several other children of the School, who fell ill about a week later. I was enabled to watch the progress of the epidemic through the kindness of the teachers, who reported to me as soon as a child remained away from School through illness. I then made inquiries, and, if the disease proved to be infectious, I ordered the other children of the family (if any) to remain away from School, and kept the sick child isolated as much as possible. Notwithstanding every precaution, I found that on the 21st February, or about three weeks after the commencement of the epidemic, there were thirty-one authenticated cases of measles, all in cases children attending the Church Gate Infant School, and, as there were a still larger number of children absent from the same School with colds, I was apprehensive that these also would prove to be measles, as this disorder in the first stage has all the characters of a common cold. As the cases were all from one School, in the hope of confining or checking the epidemic, I recommended the closing of Church Gate School, which was done accordingly for four weeks. On the same day I discovered several cases of measles in children attending the Warner School and a week later (February 28) there were 20 children absent through measles from this School. I then issued a Closing Order for this School also. Despite the closing of these Schools, and excluding from ~~other~~ other Schools children from houses where the disease existed, the epidemic continued to increase, so that by the end of March the number of cases had increased to 400 and had caused six deaths. About the third week in April it showed signs of abating and, by the end of May, the town was free from measles. The total number of authenticated cases which occurred was 629 and the total number of deaths was 16. The spread of the disease had no relation to sanitation, but simply spread from one to another susceptible child. This disorder is susee infectious from the first onset of the symptoms, and the rash does not appear until the fourth day, so that during these four days parents are not aware of the infectious nature of the disorder and allow their children to attend School and mix with other children freely. During the course of this epidemic I issued over 400 Certificates of exclusion from school of children residing in infected houses and made about as many visits to Schools and homes with the object of securing as great a degree of isolation as possible. In this effort I was intelligently and loyally assisted by the Teachers of the Elementary Schools, the School Attendance Officer and the Sanitary Inspector. During the first portion of the epidemic I was forcibly impressed by two considerations. One was the little effect which school closure had on the pro-





gress of the epidemic, and the other, how tremendously expensive it would become, supposing an effort were made to isolate in a hospital each of these cases, as would have to be done if, unfortunately, a disease such as smallpox found a foothold in one of our Schools, and I see no reason whatever why an epidemic of smallpox, under similar conditions, would not spread with the same rapidity as did this epidemic of measles.

#### D I A R R H O E A.

Infantile diarrhoea commenced to be prevalent in the humid weather at the end of July and continued very prevalent and fatal through the hot months of August and September, causing altogether 33 deaths, which is the highest mortality from this cause since 1893. All the deaths were of children under five years and most of them of infants under one year. The hot weather which prevailed during these two months was undoubtedly the primary cause of this increased prevalence of diarrhoea. It is well known that when the mean temperature continues for any lengthened period over 60° it predisposes to diarrhoea and allied disorders, for at such a high temperature the air becomes rarified, charged with moisture, and does not yield as much oxygen per respiration as when it is denser. Respiration is not carried on as actively as in colder weather, neither is muscular exertion, consequently the hydrocarbons in the venous blood, instead of being consumed in the ~~big~~ lungs and exhaled as carbonic acid and water, are thrown on to the liver to be excreted as fatty acids and bile, which in their passage through the intestines give rise to gastro intestinal irritation, which is the prominent symptom of diarrhoea. This primary or weather cause was in operation not only in Loughborough, but in the surrounding rural districts, and, were it the only cause, one would naturally expect that town and country would be affected alike. This, however, was not the case, as during the same period diarrhoea was not anything like so prevalent or so fatal in the rural districts. Contributory local causes must therefore be sought for. In my opinion such contributory causes are as follows:- The subsoil water in this town in the rainy season is high, in many places not being more than three or four feet below the surface. In the dry months, when the river becomes low, there is a corresponding fall of the subsoil water. The porous soil from which the water recedes absorbs air from the surface or is filled with poisonous gasses, generated by the fermentation of the organic filth which the soil contains, fermentation being set up by the warm weather which then usually prevails. This subsoil air, charged with the products of decomposition, is drawn into the houses by the power of suction created by the fires and chimneys, is inhaled by the occupants and its pernicious effects are most manifest in ~~infants~~ infants, debilitating them and rendering them easy victims for diarrhoea and other wasting disorders. Confined areas, such as Courts and allies, damp houses, badly ventilated houses, dirty houses with badly paved brick floors, are also potent factors in the production of diarrhoea, as also is improper feeding, dealt with in a previous ~~chapter~~ clause.

#### W H O O P I N G C O U G H.

There were very few cases of this disorder. One fatal case occurred in March.

#### P H T H I S I S.

Twenty-two deaths were registered as due to this cause.





A large measure of public attention is very properly being drawn to this and other tubercular diseases and probably in the near future it will be included among the notifiable diseases. Considering the large mortality caused annually by these diseases, it seems high time some effort was made to prevent them.

#### W A T E R   S U P P L Y.

The greatest care and watchfulness has been exercised by the Water Committee to preserve the town water supply from the possibility of contamination. A complete survey of the watersheds was made in the Autumn, when every possible source of contamination was visited. Many valuable recommendations were made and it is to be hoped that all these will be carried into effect. Not content with this, samples of the water were submitted to Sir Edward Frankland, an eminent authority on water analysis, both for chemical and bacteriological examination. The result was such as to justify the greatest confidence being felt as to the purity of our water supply. The purity of a water supply is of such vast importance that I think there ought to be at least two inspections annually of the whole of the watersheds, because I am quite certain that, as a preventive to pollution, inspection is much more important than analysis. Upon a few properties the water supply is still derived from wells. Three samples of such well water were submitted to me for analysis and in each instance the water was of fairly good quality.

#### U N H E A L T H Y   D W E L L I N G S.

As foreshadowed in my the concluding paragraph of my report of last year, the attention of your Officers has been particularly directed to the matter of unhealthy dwellings, and, for this purpose, the Sanitary Committee have appointed a permanent Sub-Committee. Many valuable recommendations have been made by this Committee as to the improvement of some of the worst properties in the Borough. In three instances it became necessary to institute legal proceedings. The decision of the Court was not quite as satisfactory as we anticipated, but the effect was in each case an improvement in the condition of the properties in question. There still remains a good deal to be done in this direction as there are several houses in the Borough which are quite unfit for healthy human habitation.

#### D I S I N F E C T I O N.

The disinfection of clothing, bedding, &c, after cases of infectious disease, has hitherto been done by fumigation with sulphurous acid gas. This is not nearly as effective as disinfection by superheated steam. I therefore recommend that a steam disinfecter be provided. I also recommend that, in future, in addition to fumigation, the walls, ceilings and floors of rooms in which infectious diseases existed should be washed with a 1 in 1,000 solution of Perchloride of Mercury.

#### S C A V E N G I N G.

##### COLLECTION & DISPOSAL OF NIGHTSOIL AND HOUSE REFUSE.

This work has been well done during the year. From the Inspector's report some idea of its extent may be gathered. The number of water closets and pail closets have increased during the year and a considerable number of middens have been





abolished, but there still remains a large number of these objectionable receptacles of filth which, from their structure, are sources of soil pollution, which is the more insidious by reason of it being invisible. It will be the duty of your Officials to continue the work of the abolition of these unhealthy structures. With regard to pail closets, it has been the custom of the Sanitary Authority in the past to allow one pail to every two houses. In the case of large families this is insufficient. There ought to be, in such cases, one to each house.

#### S L A U G H T E R H O U S E S.

In the Inspector's report will be seen details of the Sanitary work accomplished during the year. I can especially emphasise his paragraph on slaughterhouses.

#### S E W A G E D I S P O S A L.

Great improvements have been made in the working of the Sewage Farm during the year and the effluent is now as good as can be desired.

Appended is a tabulated statement of deaths which occurred during the year, classified according to diseases, ages, and localities, together with a tabulated statement of population births and new cases of infectious sickness,; also classified according to diseases and ages.

#### C O N C L U S I O N.

In conclusion I may be allowed to state that in my opinion this is as healthy a town as any of its size in England and healthier than many. Our death rate is low and has been so for several years. Our zymotic death rate is low, our epidemics have only been trifling and our water supply is excellent. Still, as there seems to be a growing disposition on the part of many persons, particularly on the part of those interested in bad cottage property, to criticise adversely the action of your Officers and of your Sanitary Committee, and to assert that a too high sanitary standard is being aimed at (indeed such a view seemed to be favoured by the action of the Magistrates in a recent case), I have thought it my duty to explain, even at some length, the fact that insanitary conditions do cause deaths and that we are not theoretical faddists, aiming at impossibilities, but practical people, aspiring to remedy such insanitary conditions.

I have the honour to be: Gentlemen,

Your obedient Servant,

THOMAS CORCORAN,

Medical Officer of Health.

25, Victoria Street,  
LOUGHBOROUGH.

30th January, 1899.

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TABULATED STATISTICS APPENDED TO THE REPORT.

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POPULATION (CENSUS 1891), 18,196  
ESTIMATED TO MIDDLE OF 1898, 20, 600.

Mortality from all causes at subjoined ages:- Under one year, 116; one and under five, 40; five and under fifteen, 11; fifteen and under twenty-five, 20; twenty-five and under sixty-five, 100; sixty-five and upwards, 67; total, 354.

Deaths occurring within the District among persons not belonging thereto, 18.

Mortality from subjoined causes, under five years:- Scarlatina, 3; Membranous Croup, 5; Measles, 13; Whooping Cough, 1; Diarrhoea and Dysentery, 33; Bronchitis, Pneumonia, and Pleurisy, 17; Heart Disease, 2; Injuries, 6; all other diseases, 76, total, 156. Five years and upwards:- Enteric of typhoid, 7; puerperal fever, 3; Measles, 3; Rheumatic fever, 1; Phthisis, 22; Bronchitis, Pneumonia, and Pleurisy, 27; Heart Disease, 33; Injuries, 7; all other diseases, 95; total, 198.

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# B O R O U G H   O F   L O U G H B O R O U G H .

## URBAN   DISTRICT   COUNCIL.

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### ANNUAL REPORT OF THE SANITARY INSPECTOR, FOR THE YEAR ENDING 31st DECEMBER, 1898.

Gentlemen,

In presenting to you this, my Annual Report, you will observe that the work of the Department is not on the wane, but rather increasing, the result of course is owing to the rapid growth of the town.

During the year 234 Notices have been issued upon which has been specified the following work, and carried out by the several owners of property:-

House drains repaired,	127
Yard surfaces repaired,	52
Roofs, eaves gutters &c repaired or renewed,	42
House floors repaired or renewed,	26
Midden privies repaired	24
Pail closets (new pails provided)	27
Dust receptacles provided	14
Water closets repaired	12
Pail closets substituted in lieu of privies	29
Animals filthily kept, removed	12
Offensive deposits, Manure &c removed	6
Water closets substituted in lieu of privies	7
Manure receptacles repaired	4
Dwellinghouses, cleansed & limewashed	33
Overcrowding abated	1
Cisterns cleansed (rain water)	3
Additional closet accommodation provided	1
Urinals repaired or renewed	1

It would appear to the uninitiated that little more remains to be done, but I can assure you at the present rate of progress it will take some years to remedy all defects and place the town in a good sanitary condition.

The following is a list of inspections and visits made to premises during the year:-

Dwelling house inspected	647
Re-inspections of dwellinghouses	815
Miscellaneous reports	553
Visits paid to infected dwellinghouses	169
Factories and Workshops visited	20
Visits to Common Lodginghouses	40
Complaints received	50
Bakehouses inspected	96





Slaughter houses inspected	47
Rooms fumigated after infectious diseases	54
Schools inspected	5
Communications received re Dust removal	236
Cowsheds inspected	20
Samples of water submitted for analysis	3

#### S C A V E N G I N G .

The following figures will show at a glance the amount of refuse removed from amidst the homes of the people during the year. The total number of ashpits emptied during the year was 2,168. Of this number 1,259 were midden privies and the remaining 909 were dry ashpits. The total number of loads removed was 6,190. Of this quantity 2,970 loads were dry ashes and have been deposited at the Sewage Farm and used as fuel. The remaining 3,220 loads of night-soil and pan manure were disposed of to various farmers in the district. There are within the Borough about 1,250 pail closets; these are emptied weekly. The whole of the work has been carried out fairly satisfactory, but I am of opinion that an improvement might be effected by the Corporation providing horses and a staff of men under their direct control and abolishing the contract system.

#### UNHEALTHY DWELLINGS SUB-COMMITTEE.

During the year the above Sub-Committee was formed, its object being to inspect and report upon all premises which are reported by the Council's Officers as unfit for human habitation, with a view to securing the improvement of the sanitary condition of such dwellinghouses, or taking such action as may be necessary for closing the same.

#### COMMON LODGINGHOUSES.

The Common Lodging houses during the year have been re-registered and inspected regularly and at all times found to be in a cleanly condition. During the year one Keeper was proceeded against for breaches of the Act and was fined.

#### DAIRIES & COWSHEDS.

I regret to inform you that a number of the Cowsheds within the Borough fail to comply with the Bye-laws and Regulations in force respecting the same. If permitted I shall endeavour to effect an improvement in the Spring of this year, the present time being inopportune as the Cattle are now occupying the various sheds.



## SLAUGHTER HOUSES.

Many of the slaughterhouses within the Borough, I regret to say, are unsuitable for such purposes, owing to their close proximity to dwellings and their dilapidated condition. It would be to the interest of the public health if the Authority established one or more Abattoirs or Public Slaughter-houses, giving every facility to butchers to slaughter cattle upon suitable premises and in convenient situations. By the above means garbage and offal (quantities of which now finds its way into manure receptacles) could be readily collected and disposed of in a proper manner. It would also afford ample means for inspecting the animals intended for slaughter and the carcasses before removal for sale.

## M A R K E T S.

The Markets have been inspected regularly and all food offered for sale found wholesome; at least its condition has been such as not to warrant any seizure being made.

I have the honour to be, Gentlemen,  
Your obedient Servant,

R A L P H L O R D.

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